

REMARKS

Reconsideration and withdrawal of the objection and rejections set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 1-5 and 8-25 are now pending in the application. Claims 6 and 7 have been withdrawn from consideration by the Examiner and have been cancelled herein without prejudice. Claims 1 and 17-19 are independent. Claims 1-3, 10, 11, 13 and 17-20 have been amended and Claims 21-25 are newly-presented herein. Support for the new claims can be found at least at Steps S704 and S705 of Figure 7 (Claim 21) and the specification at page 25, lines 10-17 (Claims 22-25). Of course, the claims are not intended to be limited in scope to this preferred embodiment.

Claim 10 was objected to for an informality. Applicants have amended Claim 10 herein to provide clearer antecedent basis for the first and second motors. Reconsideration and withdrawal of the objection to Claim 10 are respectfully requested.

Claims 1-5, 8, 9, 14, 15 and 17 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,998,956 (Saito). Claims 10-13, 16 and 18-20 were rejected under 35 U.S.C. § 103 as being unpatentable over Saito in view of U.S. Patent No. 5,490,105 (Hayami). These rejections are respectfully traversed.

Saito is directed to a recording apparatus having a stepping motor as a driving source. In the flowchart of Figure 6, the number of carriage scanings is counted at Step 603 and the counted number is compared with a selected threshold value in Step 604.

However, Saito does not disclose or suggest generating control information for a driving torque of a motor, and comparing that control information and a threshold, as is recited in independent Claims 1 and 17-19. The claims do not recite using a number of carriage scannings in a comparison. Rather, the present invention can prevent a fault generated by an overload, regardless of the number of carriage scanning operations.

Thus, Saito fails to disclose or suggest important features of the present invention recited in the independent claims.

Hayami is directed to an motor drive controlling apparatus using servo-motors as drive sources. Two servo-motors 6a, 6b, are controlled using a plurality of encoders 22, 23, 25, 26 in the feedback loops shown in the drive control circuit of Figures 6A and 6B. As understood by Applicants, the first encoder 22 and the third encoder 25 are useful for velocity controlling, whereas the second encoder 23 and the fourth encoder 26 are used for position controlling. Each of the servo-motors is controlled based on the velocity controlling and the position controlling. This differs from the present invention as recited in independent Claims 18 and 19, for example, which recite feedback controlling driving of the first motor and open-loop controlling driving of the second motor. Hayami is not believed to remedy the deficiencies of Saito noted above with respect to the independent claims.

Thus, independent Claims 1 and 17-19 are patentable over the citations of record. Reconsideration and withdrawal of the §§ 102 and 103 rejections are respectfully requested.

For the foregoing reasons, Applicants respectfully submit that the present invention is patentably defined by independent Claims 1 and 17-19. Dependent Claims 2-5, 8-16 and 20-25 are also allowable, in their own right, for defining features of the present invention in addition to those recited in their respective independent claims. Individual consideration of the dependent claims is requested.

Applicants submit that the present application is in condition for allowance. Favorable reconsideration, withdrawal of the objection and rejections set forth in the above-noted Office Action, and an early Notice of Allowability are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark A. Williamson', with a long horizontal line extending to the right.

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